

CLAIMS

What is claimed is:

1. A ground-enhanced semiconductor package, comprising:

a lead frame having at least one die pad, a plurality of tie bars connected with and supporting the die pad, a plurality of leads surrounding the die pad, and a ground structure;

wherein the ground structure comprises at least one of first ground portions connected to the tie bars, and/or at least one of second ground portions connected to the die pad, and wherein the first ground portions are separate from each other, and the second ground portions are separate from each other;

at least one chip mounted on the die pad and electrically connected to the leads and the ground structure; and

an encapsulation body for encapsulating the chip and the lead frame.

2. The ground-enhanced semiconductor package of claim 1, wherein the first ground portions are separate from the second ground portions.

3. The ground-enhanced semiconductor package of claim 1, wherein the first ground portion is connected to the die pad.

4. The ground-enhanced semiconductor package of claim 3, wherein the first ground portion comprises a ground area and a connection area which are interconnected to form a hollow-out area together with one of the tie bars.

5. The ground-enhanced semiconductor package of claim 1, wherein the first ground portion is not connected to the die pad.

6. The ground-enhanced semiconductor package of claim 5, wherein the first ground portion is shaped as a strip.

7. The ground-enhanced semiconductor package of claim 1, wherein the second

ground portion comprise a ground area and at least one connection area which are interconnected to form a hollow-out area together with a side edge of the die pad.

8. The ground-enhanced semiconductor package of claim 1, wherein each of the tie bars is formed with at least one of the first ground portions.
9. The ground-enhanced semiconductor package of claim 1, wherein the first ground portions are connected to both lateral sides of the tie bars.
10. The ground-enhanced semiconductor package of claim 1, wherein each side edge of the die pad is formed with at least one of the second ground portions.
11. A lead frame, comprising:
 - a body having at least one die pad, a plurality of tie bars connected with and supporting the die pad, and a plurality of leads surrounding the die pad; and
 - a ground structure comprising at least one of first ground portions connected to the tie bars, and/or at least one of second ground portions connected to the die pad, wherein the first ground portions are separate from each other, and the second ground portions are separate from each other.
12. The lead frame of claim 11, wherein the first ground portions are separate from the second ground portions.
13. The lead frame of claim 11, wherein the first ground portion is connected to the die pad.
14. The lead frame of claim 13, wherein the first ground portion comprises a ground area and a connection area which are interconnected to form a hollow-out area together with one of the tie bars.
15. The lead frame of claim 11, wherein the first ground portion is not connected to the die pad.
16. The lead frame of claim 15, wherein the first ground portion is shaped as a

strip.

17. The lead frame of claim 11, wherein the second ground portion comprise a ground area and at least one connection area which are interconnected to form a hollow-out area together with a side edge of the die pad.
18. The lead frame of claim 11, wherein each of the tie bars is formed with at least one of the first ground portions.
19. The lead frame of claim 11, wherein the first ground portions are connected to both lateral sides of the tie bars.
20. The lead frame of claim 11, wherein each side edge of the die pad is formed with at least one of the second ground portions.